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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/619,781

07/14/2003

Naga Bhushan

030168U1

7814

23696 7590 04/21/2010  
QUALCOMM INCORPORATED  
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EXAMINER

VU, MICHAEL T

ART UNIT

PAPER NUMBER

2617

NOTIFICATION DATE

DELIVERY MODE

04/21/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com  
kascanla@qualcomm.com  
nanm@qualcomm.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/619,781	<b>Applicant(s)</b> BHUSHAN ET AL.	
	<b>Examiner</b> MICHAEL T. VU	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 3-8, 10-14, and 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 6-8, 10, 11, 13, 14 and 19 is/are rejected.
- 7) ☒ Claim(s) 5, 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 07/16/2009 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/31/2009 has been entered.

### ***Election/Restrictions***

3. Applicant's election without traverse of claims 1, 3-8, 10-14, and 19 in the reply filed on 02/09/2006 is acknowledged.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 3-4, 6-8, 10-11, 13-14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Das et al (US 7,437,654) in view of Lee-William et al (US 7,170,866), and further in view of Lee-Young et al (US 2005/0058154).**

**Regarding claims 1, 8, and 19,** Das teaches a method for transmission of packetized data in a wireless communication system having a designated packet error rate (Figure #1 shows a Base Station transmit/receive/retransmit error subpacket), the method comprising:

determining a first number of installments for transmission of a first subpacket of data (Col. 2, line 62 to Col. 3, line 23);

determining a second number of installments for transmission of the first subpacket of data (Col. 3, line 39 to Col. 4, line 44), the second number less than the first number (Re-transmit error packets/subpacket, ACK/NACK Col. 4, lines 1-44);

Das does not clearly teach determining power boost gain factors for the second number of installments the power boost gain factors satisfying the designated packet error rate; power boosting transmissions of the second number of installments of the first subpacket of data by applying the power boost gain factors; and terminating transmission of the first subpacket of data after the second number of installments.

However, Lee-William teaches determining power boost gain factors for the second number of installments the power boost gain factors satisfying the designated

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packet error rate (determine when error occurs/power control/power based retransmission, see Abstract); power boosting transmissions of the second number of installments of the first subpacket of data by applying the power boost gain factors (adjustments to the transmit power (Col. 4, lines 1-6), and (Col. 4, lines 47-52);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Das, with Lee's teaching, in order to enhance the quality of service on wireless communications systems that available on Internet Protocol networks for handling of frame errors for saving power.

Das and Lee-William do not explicitly teach terminating transmission of the first subpacket of data after the second number of installments.

However, Lee-Young teaches terminating transmission of the first subpacket of data after the second number of installments (Figs. 14-15, and Fig. 17 show plurality sub-packets that being transmitted by allocating more power, [0050] and [0286-0288]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Das and Lee-William, with Lee-Young's system, in order to enhance the quality of service that provide for transmitting a packet efficiently using sub-packets in a mobile communication that adopts the hybrid auto retransmission request (HARQ) system in packet transmission.

**Regarding claims 3 and 10**, the combination of Das, Lee-William and Lee-Young teach the method as in claim 1, wherein the power boosting gain factors are nominally set to (N/M) (See portion of Frame [0035], [0046-0047]), wherein N is the first

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number of installments, and M is the second number of installments (See portion of Frame/Packet [0035], [0046-0047]) all of Lee-Young.

**Regarding claims 4 and 11**, the combination of Das, Lee-William and Lee-Young teach the method as in claim 1, wherein terminating transmission of the first subpacket of data comprises: initiating a second subpacket of data after the second number of installments (Figs. 14-15, and Fig. 17 show plurality sub-packets that being transmitted by allocating more power, [0050] and [0286-0288]) of Lee-Young.

**Regarding claims 6 and 13**, the combination of Das, Lee-William and Lee-Young teach the method as in claim 1, further comprising: receiving a negative acknowledgement message after transmission of the second number of installments (Figures 16-17 show the sub-packets are transmit/receive with the message ACK/NACK); and processing the first subpacket of data at a higher layer [0311, 0314] all of Lee-Young.

**Regarding claims 7 and 14**, the combination of Das, Lee-William and Lee-Young teach the method as in claim 1, further comprising: receiving an acknowledgement message before transmission of all of the second number of installments [0094-0300]; and initiating transmission of a second subpacket of data (Figures 16-17 show the sub-packets are transmit/receive with the message ACK/NACK) all of Lee-Young.

***Allowable Subject Matter***

6. **Claims 5 and 12**, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**With respect to claims 5 and 12**, the prior art of record fails to teach alone or in combination the method as in claim 1, wherein the first number of installments for the first subpacket of data corresponds to a first time period, wherein terminating transmission of the first subpacket of data comprises: waiting for expiration of the first time period; and initiating transmission of a second subpacket of data after expiration of the first time period.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL T. VU whose telephone number is (571)272-8131. The examiner can normally be reached on 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles N. Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL T VU/  
Examiner, Art Unit 2617

/Charles N. Appiah/  
Supervisory Patent Examiner, Art Unit 2617